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1636



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/155,327F

DATE: 01/21/2003

TIME: 12:26:16

Input Set : N:\Crf4\01172003\I155327G.raw
Output Set: N:\CRF4\01212003\I155327F.raw

1 <110> APPLICANT: AMRAD Operations Pty Ltd
2 <120> TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
3 FAMILY OF APOPTOSIS-CONTROLLING GENES
4 <130> FILE REFERENCE: 2096584
C--> 5 <140> CURRENT APPLICATION NUMBER: US/09/155,327F
C--> 6 <141> CURRENT FILING DATE: 1996-03-27
7 <150> PRIOR APPLICATION NUMBER: PN8965
8 <151> PRIOR FILING DATE: 1996-03-27
9 <160> NUMBER OF SEQ ID NOS: 15
10 <170> SOFTWARE: PatentIn Ver. 2.1
12 <210> SEQ ID NO: 1
13 <211> LENGTH: 33
14 <212> TYPE: DNA
15 <213> ORGANISM: Mouse
16 <220> FEATURE:
17 <221> NAME/KEY: modified_base
18 <222> LOCATION: 16
19 <223> OTHER INFORMATION: n is inosine
20 <220> FEATURE:
21 <221> NAME/KEY: modified_base
22 <222> LOCATION: 19
23 <223> OTHER INFORMATION: n is inosine
24 <220> FEATURE:
25 <221> NAME/KEY: modified_base.
26 <222> LOCATION: 22
27 <223> OTHER INFORMATION: n is inosine
28 <220> FEATURE:
29 <221> NAME/KEY: modified_base
30 <222> LOCATION: 25
31 <223> OTHER INFORMATION: n is inosine
32 <400> SEQUENCE: 1
W--> 33 gctctagaac tggggnhgnr tngtngcett ytt 33
35 <210> SEQ ID NO: 2
36 <211> LENGTH: 9
37 <212> TYPE: PRT
38 <213> ORGANISM: Mouse
39 <220> FEATURE:
40 <221> NAME/KEY: Unsure
41 <222> LOCATION: 5
42 <223> OTHER INFORMATION: Xaa is Ile or Val
43 <400> SEQUENCE: 2
W--> 44 Asn Trp Gly Arg Xaa Val Ala Phe Phe
45 1 5

ENTERED

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Input Set : N:\Crf4\01172003\I155327G.raw
 Output Set: N:\CRF4\01212003\I155327F.raw

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47 <210> SEQ ID NO: 3
48 <211> LENGTH: 31
49 <212> TYPE: DNA
50 <213> ORGANISM: Mouse
51 <220> FEATURE:
52 <221> NAME/KEY: modified_base
53 <222> LOCATION: 14
54 <223> OTHER INFORMATION: n is inosine
55 <220> FEATURE:
56 <221> NAME/KEY: modified_base
57 <222> LOCATION: 17
58 <223> OTHER INFORMATION: n is inosine
59 <220> FEATURE:
60 <221> NAME/KEY: modified_base
61 <222> LOCATION: 20
62 <223> OTHER INFORMATION: n is inosine
63 <400> SEQUENCE: 3
W--> 64      ggaattccca gccnccntkn tcttgatcc a      31
66 <210> SEQ ID NO: 4
67 <211> LENGTH: 8
68 <212> TYPE: PRT
69 <213> ORGANISM: Mouse
70 <220> FEATURE:
71 <221> NAME/KEY: Unsure
72 <222> LOCATION: 4
73 <223> OTHER INFORMATION: Xaa is Asp or Glu
74 <220> FEATURE:
75 <221> NAME/KEY: Unsure
76 <222> LOCATION: 5
77 <223> OTHER INFORMATION: Xaa is Asn or Gln
78 <400> SEQUENCE: 4
W--> 79      Trp Ile Gln Xaa Xaa Gly Gly Trp
80          1          5
82 <210> SEQ ID NO: 5
83 <211> LENGTH: 14
84 <212> TYPE: PRT
85 <213> ORGANISM: Mouse
86 <400> SEQUENCE: 5
87      Met Ala Thr Pro Ala Ser Thr Pro Asp Thr Arg Ala Leu Val
88          1          5          10
90 <210> SEQ ID NO: 6
91 <211> LENGTH: 583
92 <212> TYPE: DNA
93 <213> ORGANISM: HUMAN
94 <220> FEATURE:
95 <221> NAME/KEY: CDS
96 <222> LOCATION: (1)..(579)
97 <400> SEQUENCE: 6
98      atg gcg acc cca gcc tcg gcc cca gac aca cgg gct ctg gtg gca gac      48

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```

99      Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Val Ala Asp
100      1          5          10          15
101      ttt gta ggt tat aag ctg agg cag aag ggt tat gtc tgt gga gct ggc 96
102      Phe Val Gly Tyr Lys Leu Arg Gln Lys Gly Tyr Val Cys Gly Ala Gly
103      20          25          30
104      ccc ggg gag ggc cca gca gct gac ccg ctg cac caa gcc atg cgg gca 144
105      Pro Gly Glu Gly Pro Ala Ala Asp Pro Leu His Gln Ala Met Arg Ala
106      35          40          45
107      gct gga gat gag ttc gag acc cgc ttc cgg cgc acc ttc tct gat ctg 192
108      Ala Gly Asp Glu Phe Glu Thr Arg Phe Arg Arg Thr Phe Ser Asp Leu
109      50          55          60
110      gcg gct cag ctg cat gtg acc cca ggc tca gcc cag caa cgc ttc acc 240
111      Ala Ala Gln Leu His Val Thr Pro Gly Ser Ala Gln Gln Arg Phe Thr
112      65          70          75          80
113      cag gtc tcc gac gaa ctt ttt caa ggg ggc ccc aac tgg ggc cgc ctt 288
114      Gln Val Ser Asp Glu Leu Phe Gln Gly Gly Pro Asn Trp Gly Arg Leu
115      85          90          95
116      gta gcc ttc ttt gtc ttt ggg gct gca ctg tgt gct gag agt gtc aac 336
117      Val Ala Phe Phe Val Phe Gly Ala Ala Leu Cys Ala Glu Ser Val Asn
118      100          105          110
119      aag gag atg gaa cca ctg gtg gga caa gtg cag gag tgg atg gtg gcc 384
120      Lys Glu Met Glu Pro Leu Val Gly Gln Val Gln Glu Trp Met Val Ala
121      115          120          125
122      tac ctg gag acg cgg ctg gct gac tgg atc cac agc agt ggg ggc tgg 432
123      Tyr Leu Glu Thr Arg Leu Ala Asp Trp Ile His Ser Ser Gly Gly Trp
124      130          135          140
125      gcg gag ttc aca gct cta tac ggg gac ggg gcc ctg gag gag gcg cgg 480
126      Ala Glu Phe Thr Ala Leu Tyr Gly Asp Gly Ala Leu Glu Glu Ala Arg
127      145          150          155          160
128      cgt ctg cgg gag ggg aac tgg gca tca gtg agg aca gtg ctg acg ggg 528
129      Arg Leu Arg Glu Gly Asn Trp Ala Ser Val Arg Thr Val Leu Thr Gly
130      165          170          175
131      gcc gtg gca ctg ggg gcc ctg gta act gta ggg gcc ttt ttt gct agc 576
132      Ala Val Ala Leu Gly Ala Leu Val Thr Val Gly Ala Phe Phe Ala Ser
133      180          185          190
134      aag tgaa 583
135      Lys
137 <210> SEQ ID NO: 7
138 <211> LENGTH: 193
139 <212> TYPE: PRT
140 <213> ORGANISM: HUMAN
141 <400> SEQUENCE: 7
142      Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Val Ala Asp
143      1          5          10          15
144      Phe Val Gly Tyr Lys Leu Arg Gln Lys Gly Tyr Val Cys Gly Ala Gly
145      20          25          30
146      Pro Gly Glu Gly Pro Ala Ala Asp Pro Leu His Gln Ala Met Arg Ala
147      35          40          45
148      Ala Gly Asp Glu Phe Glu Thr Arg Phe Arg Arg Thr Phe Ser Asp Leu

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Input Set : N:\Crf4\01172003\I155327G.raw

Output Set: N:\CRF4\01212003\I155327F.raw

149	50	55	60	
150	Ala Ala Gln Leu His Val Thr Pro Gly Ser Ala Gln Gln Arg Phe Thr			
151	65	70	75	80
152	Gln Val Ser Asp Glu Leu Phe Gln Gly Gly Pro Asn Trp Gly Arg Leu			
153		85	90	95
154	Val Ala Phe Phe Val Phe Gly Ala Ala Leu Cys Ala Glu Ser Val Asn			
155		100	105	110
156	Lys Glu Met Glu Pro Leu Val Gly Gln Val Gln Glu Trp Met Val Ala			
157		115	120	125
158	Tyr Leu Glu Thr Arg Leu Ala Asp Trp Ile His Ser Ser Gly Gly Trp			
159		130	135	140
160	Ala Glu Phe Thr Ala Leu Tyr Gly Asp Gly Ala Leu Glu Glu Ala Arg			
161		145	150	155
162	Arg Leu Arg Glu Gly Asn Trp Ala Ser Val Arg Thr Val Leu Thr Gly			
163		165	170	175
164	Ala Val Ala Leu Gly Ala Leu Val Thr Val Gly Ala Phe Phe Ala Ser			
165		180	185	190
166	Lys			
168	<210> SEQ ID NO: 8			
169	<211> LENGTH: 582			
170	<212> TYPE: DNA			
171	<213> ORGANISM: Mouse			
172	<220> FEATURE:			
173	<221> NAME/KEY: CDS			
174	<222> LOCATION: (1)..(579)			
175	<400> SEQUENCE: 8			
176	atg gcg acc cca gcc tca acc cca gac aca cgg gct cta gtg gct gac			48
177	Met Ala Thr Pro Ala Ser Thr Pro Asp Thr Arg Ala Leu Val Ala Asp			
178	1	5	10	15
179	ttt gta ggc tat agg ctg agg cag aag ggt tat gtc tgt gga gct ggc			96
180	Phe Val Gly Tyr Arg Leu Arg Gln Lys Gly Tyr Val Cys Gly Ala Gly			
181		20	25	30
182	cct ggg gaa ggc cca gcc gcc gac ccg ctg cac caa gcc atg cgg gct			144
183	Pro Gly Glu Gly Pro Ala Ala Asp Pro Leu His Gln Ala Met Arg Ala			
184		35	40	45
185	gct gga gac gag ttt gag acc cgt ttc cgc cgc acc ttc tct gac ctg			192
186	Ala Gly Asp Glu Phe Glu Thr Arg Phe Arg Arg Thr Phe Ser Asp Leu			
187		50	55	60
188	gcc gct cag cta cac gtg acc cca ggc tca gcc cag caa cgc ttc acc			240
189	Ala Ala Gln Leu His Val Thr Pro Gly Ser Ala Gln Gln Arg Phe Thr			
190		65	70	75
191	cag gtt tcc gac gaa ctt ttc caa ggg ggc cct aac tgg ggc cgt ctt			288
192	Gln Val Ser Asp Glu Leu Phe Gln Gly Gly Pro Asn Trp Gly Arg Leu			
193		85	90	95
194	gtg gca ttc ttt gtc ttt ggg gct gcc ctg tgt gct gag agt gtc aac			336
195	Val Ala Phe Phe Val Phe Gly Ala Ala Leu Cys Ala Glu Ser Val Asn			
196		100	105	110
197	aaa gaa atg gag cct ttg gtg gga caa gtg cag gat tgg atg gtg gcc			384
198	Lys Glu Met Glu Pro Leu Val Gly Gln Val Gln Asp Trp Met Val Ala			

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TIME: 12:26:16

Input Set : N:\Cr4\01172003\I155327G.raw

Output Set: N:\CRF4\01212003\I155327F.raw

```

199          115          120          125
200  tac ctg gag aca cgt ctg gct gac tgg atc cac agc agt ggc ggc tgg 432
201  Tyr Leu Glu Thr Arg Leu Ala Asp Trp Ile His Ser Ser Gly Gly Trp
202          130          135          140
203  gcg gag ttc aca gct cta tac ggg gac ggg gcc ctg gag gag gca cgg 480
204  Ala Glu Phe Thr Ala Leu Tyr Gly Asp Gly Ala Leu Glu Glu Ala Arg
205  145          150          155          160
206  cgt ctg cgg gag ggg aac tgg gca tca gtg agg aca gtg ctg acg ggg 528
207  Arg Leu Arg Glu Gly Asn Trp Ala Ser Val Arg Thr Val Leu Thr Gly
208          165          170          175
209  gcc gtg gca ctg ggg gcc ctg gta act gta ggg gcc ttt ttt gct agc 576
210  Ala Val Ala Leu Gly Ala Leu Val Thr Val Gly Ala Phe Phe Ala Ser
211          180          185          190
212  aag tga 582
213  Lys
215 <210> SEQ ID NO: 9
216 <211> LENGTH: 193
217 <212> TYPE: PRT
218 <213> ORGANISM: Mouse
219 <400> SEQUENCE: 9
220  Met Ala Thr Pro Ala Ser Thr Pro Asp Thr Arg Ala Leu Val Ala Asp
221  1 5 10 15
222  Phe Val Gly Tyr Arg Leu Arg Gln Lys Gly Tyr Val Cys Gly Ala Gly
223  20 25 30
224  Pro Gly Glu Gly Pro Ala Ala Asp Pro Leu His Gln Ala Met Arg Ala
225  35 40 45
226  Ala Gly Asp Glu Phe Glu Thr Arg Phe Arg Arg Thr Phe Ser Asp Leu
227  50 55 60
228  Ala Ala Gln Leu His Val Thr Pro Gly Ser Ala Gln Gln Arg Phe Thr
229  65 70 75 80
230  Gln Val Ser Asp Glu Leu Phe Gln Gly Gly Pro Asn Trp Gly Arg Leu
231  85 90 95
232  Val Ala Phe Phe Val Phe Gly Ala Ala Leu Cys Ala Glu Ser Val Asn
233  100 105 110
234  Lys Glu Met Glu Pro Leu Val Gly Gln Val Gln Asp Trp Met Val Ala
235  115 120 125
236  Tyr Leu Glu Thr Arg Leu Ala Asp Trp Ile His Ser Ser Gly Gly Trp
237  130 135 140
238  Ala Glu Phe Thr Ala Leu Tyr Gly Asp Gly Ala Leu Glu Glu Ala Arg
239  145 150 155 160
240  Arg Leu Arg Glu Gly Asn Trp Ala Ser Val Arg Thr Val Leu Thr Gly
241  165 170 175
242  Ala Val Ala Leu Gly Ala Leu Val Thr Val Gly Ala Phe Phe Ala Ser
243  180 185 190
244  Lys
246 <210> SEQ ID NO: 10
247 <211> LENGTH: 333
248 <212> TYPE: PRT
249 <213> ORGANISM: murine

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/155,327F

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Input Set : N:\Crf4\01172003\I155327G.raw
Output Set: N:\CRF4\01212003\I155327F.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 16,19,22,25
Seq#:2; Xaa Pos. 5
Seq#:3; N Pos. 14,17,20
Seq#:4; Xaa Pos. 4,5

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/155,327F

DATE: 01/21/2003

TIME: 12:26:17

Input Set : N:\Crf4\01172003\I155327G.raw

Output Set: N:\CRF4\01212003\I155327F.raw

L:5 M:270 C: Current Application Number differs, Wrong Format
L:6 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:33 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:44 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:64 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0